

CLAIMS

What is claimed is:

1. A system for preparing a graft vessel for anastomosis, comprising:
a functional package comprising a tray in which at least one recess is defined;
and
an assembly held in at least one said recess, said assembly comprising a crown
and an anastomosis device connected to said crown;
wherein at least one said recess is configured to hold a biocompatible fluid.
2. The system of claim 1, further comprising a pull-through tool configured to be held
in said crown.
3. The system of claim 2, wherein said pull-through tool comprises a tube, wherein at
least a portion of said tube is held within said crown.
4. The system of claim 1, further comprising a stop clip detachably connected to said
recess in which said pull-through tool is held.
5. The system of claim 4, wherein said pull-through tool comprises a tube, and
wherein said stop clip comprises a guide defined therein, said guide configured to
control the motion of said tube.
6. The system of claim 1, further comprising a poke-through tool held in at least one
said recess.

7. The system of claim 6, wherein a slot is defined in said recess in which said pull-through tool is held, said slot shaped to receive said poke-through tool and control the motion of said poke-through tool relative to said crown.

8. The system of claim 7, wherein said slot is aligned with the axis of said crown.

9. The system of claim 1, further comprising an eversion shield held on said crown, said eversion shield covering said anastomosis device.

10. The system of claim 9, further comprising a poke-through tool configured to engage said eversion shield and remove it from said crown and said anastomosis device.

11. The system of claim 1, wherein said recess in which said assembly is held is configured to hold an amount of biocompatible fluid sufficient to cover said crown.

12. The system of claim 1, further comprising an anastomosis tool held in at least one said recess, said anastomosis tool comprising a passage configured to receive said crown.

13. The system of claim 12, further comprising a clip detachably connected to said anastomosis tool, wherein said clip guides said crown into said passage.

14. The system of claim 1, wherein one said recess is a graft vessel storage recess.

15. The system of claim 1, wherein one said recess is a stabilizing recess.
16. A functional package for holding one or more tools for handling a graft vessel and for preparing the graft vessel for anastomosis, comprising:
- a tray comprising at least one recess defined therein, wherein at least one said recess is configured to hold at least one tool, and wherein at least one said recess is configured to contain a fluid in which the graft vessel is immersed.
17. The functional package of claim 16, further comprising a slot defined in one said recess, said slot configured to slidably engage at least one tool.
18. The functional package of claim 16, further comprising a tray top detachably connected to said tray.
19. The functional package of claim 18, further comprising:
- an outer shell configured to receive said tray; and
 - a cover connected to said outer shell, wherein said cover seals said outer shell.
20. A pull-through tool, comprising:
- a compressible handle;
 - a tube connected to said handle, said tube having a lumen, wherein said handle includes a passage substantially coaxial with said lumen; and
 - at least one tension member fixed to said handle and free to move relative to said tube.

21. The pull-through tool of claim 20, wherein said tube is flexible.
22. The pull-through tool of claim 20, further comprising a grasping element at the distal end of at least one said tension member.
23. The pull-through tool of claim 22, wherein the distal end of each said tension member angles away from the axis of the tube.
24. The pull-through tool of claim 20, wherein the proximal end of each said tension member is fixed to the proximal end of said handle.
25. The pull-through tool of claim 20, wherein said handle comprises members connected by living hinges.
26. The pull-through tool of claim 20, wherein said tube is fixed to said handle.
27. The pull-through tool of claim 20, wherein said handle comprises a first arm and a second arm configured to engage one another when said handle is compressed.
28. The pull-through tool of claim 27, further comprising
a mating element connected to said first arm; and
at least one recess defined in said second arm, wherein said mating element is
configured to engage said at least one recess.

29. The pull-through tool of claim 27, further comprising a release element connected to said first arm.

30. An eversion shield for use with a graft vessel and an anastomosis device having at least one tine, comprising:

a removable barrier covering at least one tine, said barrier positioned such that the graft vessel may be everted over it.

31. The eversion shield of claim 30, further comprising

a body connected to said barrier; and
at least one slot through said body.

32. The eversion shield of claim 30, further comprising a secondary body connected to said body, said secondary body having a larger cross-section than said body.

33. The eversion shield of claim 30, further comprising a tab connected to said secondary body.

34. The eversion shield of claim 30, wherein a split is defined along said body.

35. The eversion shield of claim 30, further comprising a stop connected to said body.

36. A poke-through tool, comprising:

a shell with an opening therein; and

a membrane connected to said shell, said membrane accessible through said opening.

37. The poke-through tool of claim 36, further comprising at least one slider extending from said shell.

38. The poke-through tool of claim 36, wherein said membrane is composed of polyester film.

39. The poke-through tool of claim 36, wherein said shell comprises a shoulder, and wherein said shell is connected to said shoulder.

40. The poke-through tool of claim 36, wherein said shell is substantially cylindrical, and said opening is located at an end of said shell.

41. A method for preparing a graft vessel for anastomosis, comprising:

pulling the graft vessel through a crown held within a functional package;

everting the graft vessel over an anastomosis device comprising one or more tines; and

poking one or more said tines through the graft vessel.

42. The method of claim 41, wherein said poking is performed by sliding a poke-through tool relative to said anastomotic device along a guide in said functional package.

43. The method of claim 41, further comprising immersing said crown, said anastomosis device and said graft vessel in biocompatible fluid within said functional package.

44. The method of claim 41, further comprising loading said crown and the everted graft vessel into an anastomosis tool.

Accepted for Patent